

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0117251

Owner: USA, U.S. Army Maneuver Support Center and Fort Leonard Wood
Address: 1334 First St., Building 2101, Ft. Leonard Wood, MO 65473

Continuing Authority: Same as above
Address: Same as above

Facility Name: USA, U.S. Army Maneuver Support Center and Fort Leonard Wood
Address: 1334 First St., Building 2101, Ft. Leonard Wood, MO 65473

Legal Description: All or parts of: T33, 34, 35N, R10, 11, 12W, Pulaski County
All of the area known as Ft. Leonard Wood

Receiving Stream: Page 2
First Classified Stream: Roubidoux Creek (C) (10290201)(01513)
Big Piney (P) (10290202)(01566)

USGS Basin: Page 2

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001, #004, #006, #007, #012, #013, #014, #015, #016, #017, #018, and #019

SIC 9711

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

April 22, 2005
Effective Date

Doyle Childers, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

April 21, 2010
Expiration Date
MO 780-0041 (10-93)

Edward Galbraith, Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

NOTE: Where actual flow is not listed, it is dependent on rainfall

Outfall #001 - Smith Branch

Components:

Explosives detonation area FLW-4, 5, 6: SW, Sec. 31, T35N, R11W

Forney army airfield FLW-12: NW, Sec. 27, T35N, R11W

Forney army airfield FLW-13: SE, Sec. 28, T35N, R11W

Normandy training area FLW-15: Sec. 29 & 32, T35N, R11W

Smoke training

Outfall is SW $\frac{1}{4}$, sec. 29, T35N, R11W

Smith Branch (102-0201-060005)

Design Flow is 181 MGD

Outfall #002 – Eliminated

Outfall #003 – Eliminated

Outfall #004 - Unnamed Branch of Big Piney River

Components:

Defense reutilization and marketing office FLW-1: NW, Sec. 13, T35N, R11W

Bulk fuel storage FLW-2: NW, Sec. 13, T35N, R10W

Outfall is SW $\frac{1}{4}$, Sec. 18, T35N, R11W

Unnamed branch #1 (10290101-060005)

Design Flow is 0.026 MGD

Outfall #005 - Eliminated

Outfall #006

Components:

Asphalt training facility FLW-14: NE, Sec. 36, T35N, R11W

Smoke training

Outfall is at end of oil water separator discharge pipe, NW $\frac{1}{4}$, Sec. 31, T35N, R10W

Big Piney River (10290202-040002)

Design Flow is 14.5 MGD

Outfall #007

Components:

Rock quarry FLW-17: N $\frac{1}{2}$, Sec. 31, T35N, R10W

Outfall is at sediment pond outfall NW $\frac{1}{4}$, Sec. 31, T35N, R10W

Big Piney River (10290202-040002)

Design Flow is 6.5 MGD

Outfall #008

Components:

Sanitary landfill FLW-8, 9, 10: NW, Sec. 5, T34N, R11W

Outfall is SE $\frac{1}{4}$, Sec. 32, T35N, R11W, This outfall is not sampled

Smith Branch (10290201-060005)

Outfall #009 – Eliminated

Outfall #010 – Eliminated

Outfall #011 - Eliminated

Outfall #012 – Bailey – McCann Hollow

Outfall is SW $\frac{1}{4}$, Sec. 2, T34N, R12W, near McCann Cemetery

Hurd Hollow (10290201-060004)

Design Flow is 107 MGD

FACILITY DESCRIPTION (continued)

Outfall #013 – Called “AA” on FLW Maps

Training Range Area

Outfall is at SE ¼, NE ¼, Sec. 2, T34N, R11W

Unnamed creek (10290202-040002)

Design Flow is 2.12 MGD

Outfall #014 – Called “BB” on FLW Maps

Training Range Area (Smoke Training)

Outfall is at SE ¼, NW ¼, Sec. 23, T34N, R12W

Unnamed creek to Roubidoux Creek (10290201-060004)

Design Flow is 147 MGD

Outfall #015 – Called “CC” on FLW Maps

Smoke Training Area

Outfall is at NE ¼, SW ¼, Sec. 5, T35N, R11W

Roubidoux Creek (10290201-060005)

Design Flow is 449 MGD

Outfall #016 – Called “EE” on FLW Maps

Numerous Training Activities (10290203-35-01)

Outfall is at SE ¼, NW ¼, Sec. 2, T34N, R12W

Hurd Hollow (10290201-060004)

Design Flow is 485 MGD

Outfall #017 – Called “GG” on FLW Maps

Numerous Activities on Fort Site

Outfall is at SW ¼, NE ¼, Sec. 2, T35N, R11W

Dry Creek (10290202-040003)

Design Flow is 44 MGD

Outfall #018 – Bridge Training Area SIC 9711

Settling Basin

Actual Flow is 0.001 MGD

Design Flow is 0.001 MGD

Outfall is at SE ¼, Sec. 20, T35N, R10W

Latitude/Longitude: +3744325/-09203016

Tributary to Big Piney (P) (01566)

(10290202-040002)

This outfall was once outfall #002 of MO-0058068

Outfall #19 – Washrack SIC 9711

Wash Rack with oil water separator

Actual Flow is 0.125 MGD

Design Flow is 0.125 MGD

Outfall is at SW ¼, NE ¼, Sec. 32, T35N, R11W

Latitude/Longitude: +3743073/-09209477

Smith Branch (C)

Roubidoux Creek (C) (01513)

(10290201-060005)

This outfall was once Outfall #003 of MO-0058068

FACILITY DESCRIPTION (continued)

MONITORING POINTS

Roubidoux Upstream Monitoring Point
Where Roubidoux enters Fort property
NE $\frac{1}{4}$, NE $\frac{1}{4}$, Sec. 3, T33N, R12W

Roubidoux Downstream Monitoring Point
Where Roubidoux exits Fort property
NW $\frac{1}{4}$, NW $\frac{1}{4}$, Sec. 6, T35N, R11W

Big Piney Upstream Monitoring Point
Where Big Piney River enters Fort property
NW $\frac{1}{4}$, NE $\frac{1}{4}$, Sec. 32, T35N, R10W

Big Piney Downstream Monitoring Point
Where Big Piney River exits Fort property
NW $\frac{1}{4}$, NW $\frac{1}{4}$, Sec. 17, T35N, R10W

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 5 of 9	
					PERMIT NUMBER MO-0117251	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT SAMPLE FREQUENCY	TYPE
Outfall #001, #004, #006, #007, #013, #012, #014, #015, #016, #017, #018, #019						
Flow	MGD	*		*	once/year	24 hr. estimate
Settleable Solids	mL/L	2.5		1.5	once/year	grab
Oil & Grease	mg/L	15		10	once/year	grab
Oil & Grease-Visual	Yes=1 No=0	0		0	once/year	grab
Total BETX	mg/L	0.75		0.75	once/year	grab
Phosphorus, Total	mg/L	*		*	once/year	grab
Biological Oxygen Demand	mg/L	*		*	once/year	grab
Chemical Oxygen Demand	mg/L	*		*	once/year	grab
pH – Units	SU	**		**	once/year	grab
Nitrate as N	mg/L	10		10	once/year	grab
Lead, Total Recoverable	mg/L	0.020		0.020	once/year	grab
Lead, Dissolved	mg/L	*		*	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> , THE FIRST REPORT IS DUE <u>October 28, 2005</u> .						

					PAGE NUMBER 6 of 9	
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PERMIT NUMBER MO-0117251	
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OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Roubidoux Creek Upstream and Downstream Monitoring Big Piney River Upstream and Downstream Monitoring						
Oil & Grease	mg/L	*		*	twice/year***	24 hr. estimate
Oil & Grease-Visual	Yes=1 No=0	0		0	twice/year	grab
Phosphorus, Total	mg/L	*		*	twice/year	grab
Biological Oxygen Demand	mg/L	*		*	twice/year	grab
Chemical Oxygen Demand	mg/L	*		*	twice/year	grab
pH – Units	SU	*		*	twice/year	grab
Nitrate as N	mg/L	*		*	twice/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2005</u> .						

					PAGE NUMBER 7 of 9	
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PERMIT NUMBER MO-0117251	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
CDTF Monitoring Point #1 (see Special Condition #8)						
<u>Water</u>						
GB Agent	µg/L	20		20	once/year	grab
VX Agent	µg/L	20		20	once/year	grab
Diethylenetriamine	µg/L	*		*	once/year	grab
Ethyl Glycol Monomethylether	µg/L	*		*	once/year	grab
<u>Soil</u>						
GB Agent	µg/kg	20		20	once/year	grab
VX Agent	µg/kg	20		20	once/year	grab
Diethylenetriamine	µg/kg	*		*	once/year	grab
Ethylene Glycol Monomethyl ether	µg/kg	*		*	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2005</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- *** Sample twice per year in April and October.
- **** Total BETX shall be measured as the sum of Benzene, Ethylbenzene, Toluene, and Xylene.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
2. All outfalls must be clearly marked in the field.
3. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

 - (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
 - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
 - (c) That the effluent limit established in part A of the permit will be exceeded.
5. Report as no-discharge when a discharge does not occur during the report period.
6. Water Quality Standards
 - (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
7. U.S. Army, Ft. Leonard Wood will protect the asphalt plant from the 100 year flood event by appropriate methods.

C. SPECIAL CONDITIONS (continued)

8. This special condition relates to the Chemical Defense Training Facility (CDTF). Once per year a sediment sample and water sample (if surface water is present) shall be analyzed for all chemicals exposed to stormwater that are used at the CDTF. This sample shall be taken at a point just north of the CDTF building in the drainage leading to the north of the facility, designated "CDTF Monitoring Point #1", and marked in the field as such.
9. DNR, Water Protection Control Program must be given 60 days written notice of any new toxic chemicals that will be used. This permit will then be re-public noticed, if it is determined that use of the chemical could affect the environment if exposed to stormwater.
10. The following conditions are being placed on the use of dust suppressants:
 - (a) they are not applied within 300 feet of waters that have been identified as:
 - (1) a losing stream or water bodies listed in the Missouri Water Quality Standards (10 CSR 20-707.031) as an outstanding national or state resource water,
 - (2) a lake or reservoir used for public drinking water supplies,
 - (3) critical habitat for endangered species, and
 - (4) a biocriteria reference stream.
 - (b) they are not applied within 100 feet of waters classified as L2 (major reservoir) or P (permanent flow) (except for the Missouri and Mississippi Rivers),
 - (c) they are not applied to a sinkhole or other direct conduit to ground water, and
 - (d) they are not applied in such a manner that the department receives a complaint, and upon investigation, finds that the dust suppressant is causing a violation of general water quality criteria.